

FOREWORD

Section 109 of the Maritime Transportation Security Act of 2002 (MTSA) charged the Secretary of Transportation with the development of standards and curriculum to facilitate the education and training of maritime security personnel. This task was delegated to the Maritime Administration (MARAD) by the Secretary on April 3, 2003, and was completed, at my direction, by senior staff at the U.S. Merchant Marine Academy (USMMA). This Report to Congress documents the fulfillment of MARAD's MTSA Section 109 responsibilities.

This report contains the standards and curriculum called for by the MTSA in the form of model course frameworks for seven categories of maritime security professionals, including vessel, port and relevant law enforcement personnel who are charged with maritime security responsibilities that have become critically more important since the 9/11 attack on America. These model courses are intended as guidance for use by institutions and organizations that conduct maritime security education and training.

The report concludes that the development of a system of certification and oversight is essential to ensuring consistency and rigor in maritime security education and training. To this end, MARAD will begin drafting proposed regulations to provide the basis for course approvals, oversight, and student certification.

Effective education and training in port and maritime security will produce professionals who are able to play a vital role in hardening the global transportation system against the threat of terrorism and other criminal activity. This report provides the foundation for an undertaking that will make a pivotal contribution to the enhancement of our national security.



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Maritime Administrator

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EXECUTIVE SUMMARY

The U.S. Congress enacted the Maritime Transportation Security Act (MTSA) of 2002 (Public Law 107-295) on November 25, 2002. On April 3, 2003, the Secretary of Transportation (Secretary) delegated to the Maritime Administrator the authority to implement Section 109 of the MTSA, which requires the Secretary, not later than six months after the date of enactment, to develop standards and curriculum to allow for the training and certification of maritime security professionals. The Secretary found that the Maritime Administration (MARAD) has the expertise and staff to develop and implement a program for the training and certification of maritime security professionals within its area of responsibility and to make funding decisions in accordance with the statutory requirements.

At the request of the Maritime Administrator, the U.S. Merchant Marine Academy (USMMA) developed the standards and curriculum and prepared this report. The report characterizes security threats to the marine and intermodal transportation system; summarizes relevant domestic legislation, international conventions, and other guidance; delineates key workforce development issues; describes the project undertaken by MARAD in fulfillment of the Secretary's Section 109 responsibilities; presents the standards and curriculum developed in response to the MTSA mandate; and offers recommendations for the certification and oversight of maritime security education and training.

The standards, curriculum, and recommendations contained herein were developed through a deliberative and collaborative process, in which the Maritime Administration has proactively sought public comment and initiated interagency cooperation. Collaboration with the United States Coast Guard, the Transportation Security Administration, other public agencies, industry associations, and private-sector firms has been pursued to ensure that the education and training guidelines developed are responsive to the needs of affected parties and incorporate the views of stakeholders to the maximum extent possible.

Although the standards and curriculum development project was initiated in response to Section 109 of the MTSA, ongoing interagency partnerships and the developers' efforts to harmonize the requirements of domestic legislation and international conventions have led to the expansion of the original task to include the development by the USMMA (jointly with the government of India) of three model maritime security courses for the United Nations International Maritime Organization (IMO). The international implications and subsequent phases of the project are also discussed in this Report.

The standards and model course frameworks presented in this report constitute specific guidance upon which education and training institutions can immediately base instruction in port, maritime, and intermodal security. The report also recommends external certification of such education and training, and proposes that the Maritime Administration provide the leadership for a program of certification, quality control, and oversight in coordination with the U.S. Coast Guard and the Transportation Security Administration.

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1. INTRODUCTION

The events of September 11, 2001 prompted a large-scale assessment of the nation's vulnerabilities to terrorist acts and other forms of asymmetric warfare. The transportation system, for obvious reasons, is of particular concern. While the security of the U.S. commercial aviation system was the natural initial focus of this scrutiny, other modes and dimensions of transportation infrastructure are now being similarly examined. Unfortunately, our transportation system as a whole clearly offers both a target-rich environment and a potential means of access for those who seek to harm America through asymmetric warfare in general and terrorism in particular.

While all modes of transportation have specific vulnerabilities to asymmetric and terrorist attacks, perhaps no sector is more dangerously exposed than ports and the intermodal freight and passenger transportation systems to which they are connected. The potential insertion of Weapons of Mass Destruction (WMDs) into vessels, vehicles, and freight containers is a particularly acute risk in this context. A recent CIA analysis concludes that the delivery of WMDs to the United States via these mechanisms is more likely than via ICBMs.¹

Although use of the transportation system to deliver Weapons of Mass Destruction is one of the gravest threats to have been recognized, it is certainly not the only area of concern. Piracy and other forms of violence at sea continue to plague the world merchant fleet. The outright takeover by terrorists of a vessel underway with the objective of using the ship as a "floating bomb" or to transport personnel and weapons are real dangers. The susceptibility of cruise ships to terrorist attack was shown years ago by the *ACHILLE LAURO* incident. Several examples in the past year have demonstrated that terrorists themselves are using, or attempting to use, the global marine transportation system as a means of access to prospective target nations. For example, the discovery in October 2001 by Italian authorities of an Al Qaeda operative in a container destined for Canada, complete with bed, bathroom, portable electronics, airport maps, and an airline mechanic's certificate is probably suggestive of the "tip of the iceberg."

Our adversaries have also discovered the relative ease with which attacks on merchant ships can be accomplished. The attack on the tanker *LIMBURG* off Yemen on September 6, 2002 vividly illustrates this vulnerability. Small craft, laden with explosives, can be difficult to detect and intercept in a timely manner and, as was demonstrated in this incident and in the *USS COLE* bombing, can have great destructive potential.

Maritime security also includes the problems of cargo theft, drug trafficking, alien smuggling, fraudulent certification of personnel, mis-declaration of cargoes, importation of counterfeit merchandise and other forms of contraband, and organized crime activities. Although each of these is a major problem in its own right, they are not issues that are necessarily separate from the problem of maritime terrorism. It has been established that terrorist organizations frequently finance their activities through such criminal use and abuse of the transportation system. Thus, the challenges of effective crime prevention in the port and maritime context are of even greater significance today, given the new imperatives of homeland security. The term "maritime security" should therefore be construed to have broader implications than the prevention of terrorism alone.

In the wake of 9/11, the federal government, especially the U.S. Department of Transportation, has moved rapidly to formulate new strategies and tactics to counter terrorism and related threats involving the transportation system. Creation of the Transportation Security Administration (TSA), reassignment of personnel to quickly assess vulnerabilities and respond to security challenges, and the provision of grants for port security improvements are some examples of recent initiatives undertaken by DOT to this end.

The U.S. Coast Guard has moved aggressively to provide for maritime security since 9/11. Examples of this activity include a requirement for 96-hour advance notice of arrival conveying vessel data and crew composition, creation of the High Interest Vessel Boarding Program and the deployment of Coast Guard personnel as “Sea Marshals” aboard certain ships entering and leaving port to ensure vessel control if needed, establishment of fixed and moving security zones around vessels and high-risk facilities, and provision of USCG escorts for merchant vessels depending on risk circumstances. In the wake of 9/11, the Coast Guard also began maritime security initiatives at the United Nations International Maritime Organization (IMO), which resulted in the International Ship and Port and Facility Security (ISPS) Code and amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS Convention). On March 1, 2003, the Coast Guard became a component of the newly formed Department of Homeland Security (DHS).

The Transportation Security Administration (TSA) was created on November 19, 2001 through enactment of the Aviation and Transportation Security Act (ATSA). Although the primary emphasis of the agency in its early existence was on aviation security, its mission is to ensure the security of transportation of people and goods in all modes of the national transportation system. The short history of the TSA to date has been one of seemingly impossible deadlines, daunting management challenges, and impressive accomplishments. The agency has been responsible for establishing a results-oriented culture and organizational structure; creating a workforce of over 60,000 personnel; developing and implementing systems of airline passenger and baggage screening, managing a dramatically expanded Federal Air Marshal program; and formulating strategies to ensure the security of all modes of transportation. As an element of the DHS Border and Transportation Security directorate since March 1, 2003, the TSA is now integrating its operations with the other agencies that function under the DHS umbrella.

Other federal agencies have moved to secure the intermodal freight system against the threat of terrorism. For example, the U.S. Bureau of Customs and Border Protection, an organizational unit of DSH, has developed programs of international scope designed to provide point-of-origin to final destination visibility and control over containerized freight movements. Central to these initiatives are the accurate and timely flow of information on cargo and carrier movement and the identification of “trusted shippers”—those who demonstrate a degree of control over their loading facilities, personnel, and supply chains sufficient to justify characterization of their shipments as “low risk.” Key programs include the Container Security Initiative (CSI), in which Customs is working with foreign ports to identify potentially dangerous shipments before they arrive in the United States, and the Customs-Trade Partnership Against Terrorism (C-TPAT), through which Customs provides streamlined clearance of cargo to firms that establish appropriate security procedures.

2. LEGISLATION, CONVENTIONS, AND OTHER GUIDANCE

MTSA 2002

The “Maritime Transportation Security Act (MTSA) of 2002” (P.L. 107-295) was enacted by the U.S. Congress on November 25, 2002. The MTSA amends the Merchant Marine Act of 1936 to “establish a program of greater security for United States seaports, and for other purposes.” The Congress, in enacting the MTSA, noted the pivotal role of ports in the economy of the United States, the difficulties inherent in attempting to secure the Nation’s port and intermodal transportation system, the vulnerabilities of that system to acts of terrorism, and the diverse types of federal crimes that are committed in the port environment.²

Some of the key features of the MTSA are as follows:

1. Requirements for port, facility, and vessel vulnerability assessments
2. Preparation by the Secretary of Transportation of a National Maritime Transportation Security Plan and Area Plans for each U.S. Coast Guard Captain of the Port Zone
3. Development of security plans for certain facilities and commercial vessels
4. The issuance and use of Transportation Security Cards for personnel whose responsibilities require them to access secure spaces aboard ships
5. Establishment of a permanent program of grants to facilitate the enhancement of maritime security
6. Assessment by the Secretary of Transportation of the effectiveness of antiterrorism measures at foreign ports
7. Establishment of an enhanced system of foreign seafarer identification
8. Creation of Maritime Security Advisory Committees at national and area levels
9. Installation and operation of Automatic Identification Systems aboard certain commercial vessels
10. Establishment of a program to better secure international intermodal transportation systems, to include cargo screening, tracking, physical security, compliance monitoring, and related issues.
11. Provision of civil penalties for violation of statutes or regulations
12. Extension of seaward jurisdiction of the Espionage Act of 1917 to 12 nautical miles offshore of the territorial sea baseline
13. Codification of the U.S. Coast Guard Sea Marshal program and consideration of utilizing merchant mariners and other personnel to assist the Coast Guard
14. Requirements that shipment data be provided electronically to U.S. Customs prior to arrival or departure of cargo
15. Reporting by the Secretary of Transportation to Congress on foreign-flag vessels calling at United States ports
16. Development of standards and curriculum for maritime security professional training

Section 109 of the MTSA addresses the need for maritime security education and training to counter terrorist and other security threats involving the port, maritime, and intermodal transportation environment. The MTSA specifically requires that “Not later than six months after the date of enactment of this Act, the Secretary shall develop standards and curriculum to allow for the training and certification of maritime security professionals.”³

MTSA Conference Report

The conference report on Section 109 elaborates on the views of the Congress concerning the significance and necessary components of maritime security education and training. The report states, in part:

The Conferees believe that proper training is an essential element of any effective strategy to combat terrorism and enhance the security of our Nation’s ports and waterways. Effective training requires both undergraduate and professional level training curricula. An essential element of undergraduate studies is to ensure that licensed maritime professionals have a full understanding of security procedures, principles, and methods along with a thorough grasp of intermodal transportation and logistics requirements. These trained individuals will be the first line of defense against a waterborne security threat. This training should also produce maritime professionals who will be able to implement methods of tracking and identification of containerized cargo that could potentially threaten the security of our country.

Effective professional level training curricula involves two elements. The first is advanced and refresher training of licensed maritime and other transportation professionals in port and transportation security. The second element is to provide security and law enforcement professionals, charged with port security responsibilities, with the necessary background in methods and operation of a safe and efficient intermodal transportation system.⁴

IMO ISPS Code

The United Nations International Maritime Organization (IMO), spurred by the United States, has moved very quickly to promulgate new international requirements to strengthen maritime security in the wake of the 9/11 attacks. The IMO Maritime Safety Committee has developed amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS Convention) that consist of measures intended to enhance maritime security including maritime security education and training. The “International Ship and Port Facility Security (ISPS) Code” was adopted at a diplomatic conference in London held December 9-13, 2002.⁵ Further detail on the intent of the ISPS Code is provided by the IMO as follows:

In essence, the Code takes the approach that ensuring the security of ships and port facilities is basically a risk management activity and that to determine what security measures are appropriate, an assessment of the risks must be made in each particular case.

The purpose of the Code is to provide a standardized, consistent framework for evaluating risk, enabling governments to offset changes in threat with changes in vulnerability for ships and port facilities.

To begin the process, each Contracting Government will conduct port facility security assessments. Security assessments will have three essential components. First, they must identify and evaluate important assets and infrastructures that are critical to the port facility as well as those areas or structures that, if damaged, could cause significant loss of life or damage to the port facility's economy or environment. Then, the assessment must identify the actual threats to those critical assets and infrastructure in order to prioritise security measures. Finally, the assessment must address vulnerability of the port facility by identifying its weaknesses in physical security, structural integrity, protection systems, procedural policies, communications systems, transportation infrastructure, utilities, and other areas within a port facility that may be a likely target. Once this assessment has been completed, Contracting Governments can accurately evaluate risk.

This risk management concept will be embodied in the Code through a number of minimum functional security requirements for ships and port facilities. For ships, these requirements will include:

*Ship Security Plans
Ship Security Officers
Company Security Officers
Certain onboard equipment*

For port facilities, the requirements will include:

Port Facility Security Plans

*Port Facility Security Officers
Certain security equipment*

In addition the requirements for ships and for port facilities include:

*Monitoring and controlling access
Monitoring the activities of people and cargo
Ensuring security communications are readily available*

Because each ship (or class of ship) and each port facility present different risks, the method in which they will meet the specific requirements of this Code will be determined and eventually be approved by the Administration or Contracting Government, as the case may be.⁶

Part A of the ISPS Code, which is mandatory, calls for the designation of Ship Security Officers, Company Security Officers, Port Facility Security Officers, and other personnel with security functions for certain vessels and facilities involved in international trade. Part A specifically states that these personnel “shall have knowledge and have received training, taking into account the guidance given in part B of this Code.” Part B of the Code provides “recommendatory” guidelines for the training of security officers and other shipboard and port facility personnel. The Code defines the duties and responsibilities and knowledge required of:

1. Ship Security Officer
2. Company Security Officer
3. Port Facility Security Officer
4. Shipboard Personnel having Specific Security Duties
5. All other Shipboard Personnel
6. Port Facility Personnel having Specific Security Duties
7. All other Port Facility Personnel.

SOLAS Chapter XI-2

During the December 2002 diplomatic conference in London, the representatives of 108 contracting governments to the 1974 SOLAS Convention adopted a new chapter to that instrument. Chapter XI-2 of the SOLAS Convention is concerned with “Special Measures to Enhance Maritime Security,” and is summarized as follows:

This chapter applies to passenger ships and cargo ships of 500 gross tonnage and upwards, including high speed craft, mobile offshore drilling units and port facilities serving such ships engaged on international voyages.

Regulation XI-2/3 of the new chapter enshrines the International Ship and Port Facility Security Code (ISPS Code). Part A of this Code will become mandatory and part B contains guidance as to how best to comply with the mandatory requirements. The regulation requires Administrations to set security levels and ensure the provision of security level information to ships entitled to fly their flag. Prior to entering a port, or whilst in a port, within the territory of a Contracting Government, a ship shall comply with the requirements for the security level set by that Contracting Government, if that security level is higher than the security level set by the Administration for that ship.

Regulation XI-2/4 confirms the role of the Master in exercising his professional judgment over decisions necessary to maintain the security of the ship. It says he shall not be constrained by the Company, the charterer or any other person in this respect.

Regulation XI-2/5 requires all ships to be provided with a ship security alert system, according to a strict timetable that will see most vessels fitted by 2004 and the remainder by 2006. When activated the ship security alert system shall initiate and transmit a ship-to-shore security alert to a competent authority designated by the Administration, identifying the ship, its location and indicating that the security of the ship is under threat or it has been compromised. The system will not raise any alarm on-board the ship. The ship security alert system shall be capable of being activated from the navigation bridge and in at least one other location.

Regulation XI-2/6 covers requirements for port facilities, providing among other things for Contracting Governments to ensure that port facility security assessments are carried out and that port facility security plans are developed, implemented and reviewed in accordance with the ISPS Code.

Other regulations in this chapter cover the provision of information to IMO, the control of ships in port, (including measures such as the delay, detention, restriction of operations including movement within the port, or expulsion of a ship from port), and the specific responsibility of Companies.⁷

U.S. Coast Guard Guidance

The United States Coast Guard, in addressing port and maritime security challenges, has offered initial guidance through the mechanism of its “Navigation and Vessel Inspection Circulars (NVICs).” Specifically, NVIC 10-02 provides “Security Guidelines for Vessels,” while NVIC 11-02 offers “Recommended Security Guidelines for Facilities.”

NVIC 10-02, dated October 21, 2002, “establishes guidelines for vessels for performing security assessments, developing security plans, interfacing with facilities, and implementing security measures and procedures to reduce the risk to passengers, crew and port personnel on board vessels, in port areas, and to the vessels and their cargo.”⁸ The introductory material also indicates that the NVIC was developed “to assist vessel operators and owners to align with the security requirements being developed at the International Maritime Organization.”

U.S. Coast Guard NVIC 11-02, dated January 13, 2003, is intended to provide “guidance on developing security plans, procedures, and measures for facilities.” The NVIC states that the document “may be used as a benchmark to develop and implement security measures and activities in anticipation of evolving domestic and international security regimes.” It is further noted that the Circular is similar in structure to the ISPS Code, which was adopted shortly prior to the issuance of the NVIC.⁹

These documents address maritime security training in much the same manner as does the ISPS Code. The Coast Guard has stated its intention to implement the MTSA through the requirements of the ISPS Code. This position is most clearly articulated in the Federal Register Notice of December 30, 2002, which served as the guiding document for a series of seven public meetings held by the Coast Guard to collect comments on developing requirements and regulations stemming from the MTSA, the ISPS Code, and amendments to the SOLAS convention. In this document, the agency states, “. . .the Coast Guard intends to implement the MTSA through the requirements in the SOLAS amendments and the ISPS Code parts A and B for all vessels and facilities that are currently required to meet SOLAS, as well as those

vessels exclusively on domestic trade and facilities that are at risk of being involved in a transportation security incident.”¹⁰ The term *security incident* in the ISPS Code (by reference to the definition contained in SOLAS Chapter XI-2) means “any suspicious act or circumstance threatening the security of a ship, including a mobile offshore drilling unit and a high speed craft, or of a port facility or of any ship/port interface or any ship-to-ship activity.”¹¹

While the Coast Guard has clearly indicated its intention to implement the MTSA through the SOLAS amendments and the ISPS Code, there are some interpretations unique to the emerging domestic regime. The terminology associated with some classes of personnel named as having security responsibilities in the ISPS Code has been altered for domestic implementation. Specifically, the term “Ship Security Officer” in the ISPS Code is replaced by the label “Vessel Security Officer” in the Coast Guard interpretation. The primary reason for this substitution is the broader applicability of the MTSA in the United States, in which some domestic vessels are subject to the provision of the Act. Further, the term “Port Facility Security Officer” that appears in the ISPS Code is replaced by the Coast Guard with the term “Facility Security Officer.” The Coast Guard has designated the Coast Guard Captain of the Port (COTP) as “Port Facility Security Officer,” and has translated the duties, responsibilities, and knowledge requirements associated with the “Port Facility Security Officer” of the ISPS Code into a domestic equivalent labeled “Facility Security Officer.”

3. WORKFORCE DEVELOPMENT ISSUES

The emerging transportation security system will require: (1) the hiring of personnel to perform security-related tasks, (2) the education and training of new personnel, (3) the retraining of existing personnel to provide them with the knowledge and skills needed for successful performance in the new environment, and (4) the development of new mindsets and innovative approaches to transportation security.

It is difficult to quantify the need for new personnel and retraining in the transportation security realm. However, the example of the Transportation Security Administration is instructive in this regard. TSA has already hired some 64,000 personnel. Approximately 56,000 of these employees perform duties related to airline passenger and baggage screening. Beyond TSA, numerous other federal, state, and local government agencies—including the Coast Guard, FBI, local police forces, Customs, and port authorities—are expanding their organizations to include personnel having special expertise in transportation operations and security matters and will need to provide existing personnel with appropriate training and education. This is also true, to varying degrees, of parties in the private sector, such as vessel owners, terminal operators, intermodal carriers, and industrial shippers.

In the maritime context, the imposition of security-related duties on existing merchant vessel personnel is a matter of great concern. The typical merchant mariner is already overburdened as the result of the trend toward reduced manning, Oil Pollution Act of 1990 (OPA 90) regulations, STCW requirements for hours of rest, the loss of the ship radio operator position, implementation of the ISM Code and associated Safety Management Systems, and other pressures. There is substantial debate within the maritime field as to whether or not vessel security duties can be accommodated without increasing crew complements. Many in the industry have questioned the degree to which maritime security can be enhanced by adding security duties to the other responsibilities of these existing personnel.

Developing a full understanding of opportunities for terrorist attacks and other criminal activities involving the port and intermodal freight transportation system and evolving effective ways to counter those threats will require expertise that goes beyond the conventional security paradigm of “gates, guns, and guards.” While knowledge of security and counter-terrorism *per se* is important, comprehension of port, maritime, and intermodal system structure and operations will be essential in stemming the tide of

potential threats. An appreciation of the importance of information technology, information sharing, and consciousness of what technology can and cannot do in this context are also essential. Awareness of potential “win/win” scenarios in supply chain security, in which security and efficiency are simultaneously furthered, is necessary.¹² Successful prevention of terrorist actions involving port and transportation systems will ultimately depend to a large extent on the degree to which those responsible for security understand the dynamics and operational particulars of those systems and are therefore able to identify and control their vulnerabilities.

4. THE MTSA SECTION 109 PROJECT

Project History

The Maritime Transportation Security Act of 2002 requires the Secretary of Transportation to develop standards and curriculum for the education, training, and certification of maritime security personnel. The Maritime Administrator forwarded this task, which had been delegated to MARAD by the Secretary, to the United States Merchant Marine Academy for execution. A working group formed by the Academy’s Superintendent has been engaged in this project since December 20, 2002.

The Superintendent, recognizing the explicit intent of Congress that Section 109-related activities include “both undergraduate and professional level training,” designated group members from both the USMMA undergraduate program and the Academy’s Global Maritime and Transportation School (GMATS).

Major project subtasks were defined as: (1) identification and synthesis of relevant international conventions, domestic regulations, and other guidance, (2) establishment of personnel categories for which education and training standards and curriculum should be developed, (3) delineation of knowledge requirements for each personnel category, and finally (4) creation of course outlines or modification of existing course outlines consistent with the previous steps. The ultimate goal was defined as the generation of standards of knowledge and understanding for port, maritime, security, and law enforcement personnel and model courses of broad applicability that will render such personnel able to effectively conduct maritime security-related duties.

The standards and development project commenced with careful analysis of all relevant legislation, international conventions, Coast Guard NVICs, and other guidance. As a result of this analysis, nine discrete categories of personnel were identified as requiring specific maritime security training and knowledge. These are:

1. Vessel Security Officer
2. Company Security Officer
3. Facility Security Officer
4. Vessel Personnel with Specific Security Duties
5. Facility Personnel with Specific Security Duties
6. All Other Vessel Personnel
7. All Other Facility Personnel
8. Other Maritime Personnel
9. Military, Security, and Law Enforcement Personnel

Draft terms of reference containing the duties and responsibilities of personnel in the various categories and the knowledge standards associated with them were then prepared. In this portion of the task, a mapping of the requirements of relevant instruments to each category of personnel was accomplished. Standards of knowledge were formulated for each category, considering the particulars of the MTSA, the

MTSA conference report, the ISPS Code, and pertinent USCG guidance. Of particular concern in this phase was ensuring that the subject areas established supported the specified duties and responsibilities of personnel in the various categories.

Through interagency collaboration, public outreach, and participation in IMO deliberations, input on the draft terms of reference was solicited. Suggestions and comments thus obtained were used to further refine the draft terms of reference into model course frameworks that were presented to participants in a special conference held at the U.S. Merchant Marine Academy. This event provided the opportunity for the working group to acquire further information that was employed in finalizing the model course frameworks. The results of this process are the model course frameworks and discussion of associated issues that are presented in this report.

Interagency Collaboration

Discussions early in the project identified mutual objectives and potential synergies between and among the U.S. Coast Guard, the Merchant Marine Personnel Advisory Committee (MERPAC), the Transportation Security Administration, the International Maritime Organization, and MARAD/USMMA in the context of the MTSA Section 109 project.

Where TSA is concerned, the working group sought input and comment on the developing standards and curriculum to ensure that they are responsive to, and supportive of, the needs of the agency. Briefings to senior personnel in TSA's Office of Maritime and Land Security on the goals and details of the project led to the direct participation of TSA officers in the refinement of the course frameworks and in the public outreach component of the project.

Collaboration with the U.S. Coast Guard and the MERPAC committee on the project has been direct and productive. To a large degree, the focus of this partnership has been on the needs of the IMO with respect to the development of model courses for maritime security education and training. The international implications of the MTSA Section 109 project are discussed below.

International Implications

Although the standards and curriculum development project was initiated in response to the MTSA Section 109 mandate, as a result of the working group's efforts to harmonize the requirements of domestic legislation and international conventions and through ongoing collaboration with the U.S. Coast Guard, MERPAC, and other agencies and entities, the task has expanded to include the development (jointly with the government of India) of three model maritime security courses for the International Maritime Organization.

With the objective of avoiding an unnecessary burden of compliance on industry that would result from the imposition of multiple standards, and recognizing the explicit intention of the U.S. Coast Guard to implement the MTSA in parallel with the ISPS Code and SOLAS amendments, the working group sought from the outset of the MTSA project to ensure that the developing maritime security standards and curriculum were consistent with the emerging international framework. The group's work and intentions in this regard were brought to the attention of USCG personnel early in the project.

The discovery that the USCG had plans to volunteer to develop IMO model courses for Ship Security Officer and Company Security Officer led to direct involvement of USCG personnel and the Chairman of MERPAC in the working group's early deliberations. Recognizing that the objectives of the MTSA project were very similar to those of the IMO where maritime security education and training are

concerned, it was decided to leverage elements of the MTSA standards and curriculum for international purposes.

A meeting of the IMO STW Subcommittee was held in London from February 24-28, 2003. The U.S. delegation included a representative from MARAD Headquarters and a member of the USMMA working group. The following is excerpted from the latter's summary of the meeting:

[Working Group One] met for several days of the week long meeting and focused on the training and education of Ship Security Officers (SSOs), Company Security Officers (CSOs) and Port Facility Security Officers (PFSOs). Deliberations resulted in the details of three relevant model courses that describe the areas of competence and knowledge needed by these three categories of personnel to perform their duties under the new ISPS Code.

On the first day of the meeting at IMO Headquarters the United States delegation offered to the plenary that the United States Merchant Marine Academy could develop two of these courses (SSO and CSO) based on terms of reference created in connection with concurrent domestic activities spurred by the MTSA 2002. The government of India announced that it had completed work on these same courses. Initially it was felt by many members that the PFSO course was outside the scope of the STW but it was ultimately agreed that the United States and India should jointly develop all three of the courses, with the United States as lead.

First drafts of the SSO, CSO, and PFSO courses are due at IMO on May 30, 2003. A validation committee will then ensure that the product meets the terms of reference stated by the STW secretariat. A final photo ready copy is due in London by September 8, 2003. These rather accelerated milestones were deemed necessary in order to meet the July 2004 in-force date of the ISPS Code. Members of the STW Subcommittee were invited to the public meeting that will be held at USMMA on March 20, 2003 to gather input from various national and international interests.

Given the July 2004 deadline for the implementation of the ISPS Code, it was announced that the course frameworks and outlines that were agreed upon at this meeting should be regarded as final in terms of content and as such, may be used immediately as guidelines for the training of security personnel. As developers of the complete IMO model courses for SSO, CSO, and PFSO, the U.S. Merchant Marine Academy, working jointly with the government of India, will be bound by these terms as agreed in London.¹³

Public Outreach

In the interest of obtaining public comment on draft standards and curricula developed as part of the project, on March 20, 2003, the U.S. Maritime Administration hosted the "Conference on Maritime Security Standards and Curricula" at the United States Merchant Marine Academy in Kings Point, New York. The Maritime Administrator personally invited many organizations, government entities, and industry associations to attend the conference. One hundred and thirty-six delegates from the United States and numerous other countries attended this international event.

Highlights of the conference included presentations of the U.S. Coast Guard and Transportation Security Administration perspectives on the project. The review and public comment sessions that occupied the balance of the agenda focused on seven model course frameworks that had been provided to registrants in advance and a discussion of certification and quality control issues. A panel consisting of USMMA

working group members and representatives from USCG, TSA, and MARAD responded to questions and comments from participants.

Interest in the content of the course frameworks and related issues was strong. Sufficient time was available for all who wished to make statements or pose questions for the record. Delegates were also encouraged to provide additional detail via e-mail as soon as possible following the conference.

Some of the principal views and concerns that were voiced are summarized below:

Participants offered overwhelming support for the working group's interest in harmonizing domestic and international education and training requirements. Representatives of ocean carriers noted the burden that would be imposed if their vessels should be required to meet more than one set of standards in this connection.

It was observed that an integrated, intermodal, "holistic" approach to maritime security education and training should be implemented. The need to recognize and maintain a careful balance between security and the flow of commerce was emphasized. The working group was urged not to recommend economically unpalatable education, training, and certification requirements. A suggestion was made that government funding for maritime security education and training be made available. Concerns were articulated about the imposition of additional (security-related) responsibilities on already overburdened merchant vessel personnel.

A consensus emerged that instruction of roughly three days' duration would be appropriate for both Vessel Security Officer and Company Security Officer courses. A comment was offered that course duration might be better measured in hours, rather than in days. Comments were made that available videos are valuable resources, but that these are not sufficient for maritime security education and training on a stand-alone basis. The importance of conducting background checks on prospective students was underscored, noting the aviation training received in the U.S. by 9/11 hijackers. It was recommended that the subjects of liability and the legal implications of security activities be incorporated into model courses. Questions were raised concerning "train-the-trainer" scenarios and the degree to which maritime security personnel would bear responsibility for training their subordinates. Suggestions were made that refresher training could be accomplished through mechanisms other than the formal classroom.

Generally, vessel and facility operators appeared to favor company self-certification of security training; most other organizations seemed to support external certification. It was suggested that implementation of the STCW Convention as an analogue to maritime security training certification shows that results do not justify costs incurred. Comments were made that the USCG position not requiring formal training or certification will lead to selective enforcement and inconsistency. Other comments were offered indicating agreement with the USCG decision not to require formal training, course approval, or external certification of security personnel. Speculation was made that the present USCG position on security training certification may be only temporary and that there is a critical need for government intervention. A suggestion was offered that the USCG could add questions pertaining to maritime security to its merchant marine officer licensing exams. A comment was received from a classification society noting that it will certify maritime security courses by comparison with IMO model courses being developed. It was noted that the U.S. Department of Transportation, via MARAD, could oversee security training certification and quality control and that it has the authority to do so.

The full text of formal presentations, discussion, and public comments made during the meeting can be found in the conference proceedings, which are available as a separate document upon request.

5. STANDARDS AND CURRICULUM

The model course frameworks that constitute the “curriculum” called for by Section 109 of the MTSA can be found in the appendix to this report. The seven frameworks presented incorporate comments and suggestions received as a result of the public outreach effort described above. The frameworks are:

1. “Vessel Security Officer”
2. “Company Security Officer”
3. “Facility Security Officer”
4. “Maritime Security for Vessel Personnel with Specific Security Duties”
5. “Maritime Security for Facility Personnel with Specific Security Duties”
6. “Maritime Security for Military, Security and Law Enforcement Personnel”
7. “Maritime Security Awareness”

The standards and curriculum are discussed below in terms of how they specifically address the requirements of MTSA Section 109. Relevant language from the Act is quoted for reference.

(b) MINIMUM STANDARDS.—The standards established by the Secretary under subsection (a) shall include the following elements:

(1) The training and certification of maritime security professionals in accordance with accepted law enforcement and security guidelines, policies, and procedures, including, as appropriate, recommendations for incorporating a background check process for personnel trained and certified in foreign ports.

The course frameworks are intended as specific guidance upon which education and training providers can immediately base instruction in port, maritime, and intermodal security matters. They are the result of a careful effort to ensure that the requirements of relevant domestic legislation, international conventions, and other pertinent guidance are addressed through standards of knowledge and the acquisition of specific understanding through education and training. In addition, expert advice and public comment have been solicited and obtained through a focused public outreach effort. Input thus received has helped to ensure that the standards and curriculum are fully consistent with applicable law enforcement, government, and industry standards.

The standards and curriculum call for student background and character checks, not only for “personnel trained and certified in foreign ports,” but for all trainees.

(2) The training of students and instructors in all aspects of prevention, detection, investigation, and reporting of criminal activities in the international maritime environment.

The course frameworks in their present form constitute a base-level curriculum for maritime security education and training that includes those subjects listed in Sec. 109 (b)(2). In addition to delineating the duties and responsibilities of personnel in various categories and identifying the subject areas that should be contained in education and training that is intended to be responsive to these requirements, the curriculum suggests resources that can be employed in delivery of the material. These resources include reports, regulations, conventions, books, videotapes, and other adjuncts to education and training that will assist instructors in conducting the training envisioned in Sec. 109 (b)(2).

The topics of “prevention, detection and reporting” are common to all seven course frameworks. However, the subject area of “investigation” is addressed only in the model course framework entitled “Maritime Security for Military, Security and Law Enforcement Personnel,” given that investigation is the responsibility of law enforcement professionals and not that of vessel and facility personnel.

(3) The provision of off-site training and certification courses and certified personnel at United States and foreign ports used by United States-flagged vessels, or by foreign-flagged vessels with United States citizens as passengers or crewmembers, to develop and enhance security awareness and practices.

The standards and curriculum developed as part of the Maritime Administration’s implementation of the Section 109 mandate are intended to be fully portable and adaptable to education and training environments in a wide variety of locations and situations. The “Course Delivery” criteria provide flexibility in this regard; each of the course frameworks appended states: “The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training, or combinations of these methods.” The curriculum is not institution-specific.

The Section 109 conference report specifies that maritime professionals should:

. . . have a full understanding of security procedures, principles, and methods along with a thorough grasp of intermodal transportation and logistics requirements. . . . This training should also produce maritime professionals who will be able to implement methods of tracking and identification of containerized cargo that could potentially threaten the security of our country.

The standards and curriculum presented in this report address these requirements both implicitly and explicitly. The subject area of “vessel and port operations and conditions” is intended to provide an understanding of the intermodal and logistics context in which modern ports and marine transportation systems operate. The course framework for military, security, and law enforcement personnel is most detailed in this realm, recognizing that personnel in this category are in greatest need of a comprehensive grasp of these topics. “Supply chain and intermodal transportation structure and operations,” “port and transportation information and tracking systems,” and “cargo and transportation documentation” are examples of subject areas that provide the necessary depth in this framework.

The conference report also identifies a need for both undergraduate and professional-level curricula. The standards and frameworks contained in this report are suitable for use in either setting. The U.S. Merchant Marine Academy and the State Maritime Academies are well positioned to satisfy the need in both areas. The U.S. Merchant Marine Academy currently provides port, maritime, and transportation security education and training at the undergraduate level through its Logistics and Intermodal Transportation Program,¹⁴ and at the professional level through its GMATS program.¹⁵ The labor-operated industry schools also represent excellent potential for constituent-based maritime security training.

In creating the curricula and its associated standards, the developers have avoided imposing additional requirements beyond those mandated by law or convention. The frameworks provide coverage of what the working group considered the minimum, essential material. The base-level curriculum could, given sufficient time and financial resources, be expanded to provide detailed teaching syllabi for use by education and training providers. Internationally, this will occur for the Ship Security Officer, Company Security Officer, and Port Facility Security Officer as a result of the MTSA project’s expansion to include model course development for the International Maritime Organization. These three international model

courses are analogous to the first three MTSA courses listed above, that is: Vessel Security Officer, Company Security Officer, and Facility Security Officer.

6. CERTIFICATION AND OVERSIGHT

The issues of course approval, requirements for formal maritime security training, certification, quality control, and governmental oversight were the most contentious of all topics discussed during the “Conference on Maritime Security Standards and Curricula.” The panel heard multiple statements from participants arguing both for and against government certification of security personnel and their training, formal or otherwise.

The certification issue was discussed during the aforementioned February 24-28, 2003 meeting of the IMO STW Subcommittee. At that time, the Working Group on Unlawful Practices Associated with Certificates of Competency and Measures to Enhance Maritime Security reported to the Plenary that:

During the deliberations of the group the question arose, in the context of the provisions of Parts A and B of the ISPS Code, as to certification of those who may undergo training in accordance with the model courses under development, as well as, who should issue the documentary evidence of attendance envisaged in the relevant course frameworks. It was felt that the issue was outside the scope of the terms of reference of the group.

It is recommended that the Sub-Committee refer the matter to the Committee for its consideration and eventual guidance on the issue and invite Member Governments and Non-Governmental Organizations with a consultative status to make relevant submissions for the consideration of the Committee in the subject.¹⁶

The STW Sub-Committee referred the question of certification to the IMO Maritime Safety Committee (MSC), which is scheduled to address the matter at its 77th session, to be held in London May 28-June 6, 2003. The U.S. delegation may have the opportunity at that time to present the DOT position on the subject of certification and oversight of maritime security education and training.

At the time of this writing, regulations for implementation of the MTSA are being developed at U.S. Coast Guard Headquarters. However, as previously noted, authority to implement Section 109 has been delegated by the Secretary to the Maritime Administrator.

In the absence of a systematic and verifiable program of external certification and oversight, insufficient rigor and a lack of consistency may render maritime security education and training less effective than it should be. The working group agrees with those comments received from the public suggesting that even if a scheme of company self-certification is necessary to meet the implementation deadline, a formal system of training and certification must be planned as early as possible. Also, those maritime and facility personnel who already possess the security qualifications and knowledge specified in the ISPS Code should be accommodated through a mechanism that would permit them to demonstrate their competence and thereby avoid potentially redundant or unwarranted training. In such cases, the working group suggests the development of a certification provision involving examinations administered by a qualified body, in which candidates claiming to have the required knowledge and understanding are allowed to “test out” of a given maritime security course. Efficiency and conservation of resources for both government and industry would thus be furthered.

It is further recognized and appreciated that the port and maritime industry has been the subject of ever-increasing regulation and oversight over time. Compliance with the STCW convention, the ISM Code,

OPA 90, and other conventions and domestic regulations have imposed significant administrative burdens for carriers and certain facilities, often including a multitude of inspections. Given this, it seems desirable to leverage existing mechanisms and frameworks, integrating maritime security education and training requirements into existing procedures and institutions to the extent possible.

It is the opinion of the working group that in order to make maritime security education and training effective, the following conditions must be met:

1. Uniformity of content: the development of the MTSA model course frameworks and IMO model courses, their respective domestic adoption and approval by IMO, and the subsequent development of education and training courses based upon them will serve this purpose in part.
2. Consistency of training: in order to ensure adequate quality and rigor, approval of training courses by a recognized certifying institution or organization is necessary.
3. Stability of training: creation of a system of periodic audits of courses and training institutions and of companies employing course graduates is essential to verifying the continued adherence to established standards.

To satisfy these conditions, it is recommended that the U.S. Department of Transportation, through MARAD, establish a system of maritime security education and training course approval and quality control. MARAD has long been deeply involved in the analysis of marine transportation activities, workforce requirements, and personnel education and training. MARAD, having been delegated responsibility for Section 109 implementation, could readily assume oversight and certification responsibility for maritime security education and training.

Consistency of training can be ensured through a course approval process that should be developed and administered directly by the Maritime Administration. Education and training institutions wishing to conduct courses leading to certification would submit applications for course approval to MARAD. Application packages would be expected to include such documents as the course outline, course framework, course schedule, detailed teaching syllabus, instructor manual, examination and assessment policy, instructor resumes, and similar materials. The essence of the course approval task would be to ensure that these elements are consistent with established maritime security education and training standards derived from the present project. MARAD personnel with expertise in maritime security course development and related education and training would be well positioned to undertake this duty.

A system of training oversight will be necessary to ascertain that approved courses are delivered in a manner consistent with their original approval and applicable standards. To accomplish this, the working group recommends the creation of a Quality Standards System (QSS) for maritime security education and training programs. In this approach, MARAD, as lead agency, would supervise organizations that would audit maritime security education and training. MARAD would chair a team that would operate under a charter and that could include experts from TSA and the Coast Guard. This team would establish performance criteria that approved organizations would be required to meet. Designated organizations would then conduct ongoing assessment of courses to verify that their delivery, instructors, facilities, and other training elements adhere to recognized standards. A current analogue to this approach is the QSS called for in the STCW Convention, through which the American Council on Education, the American Bureau of Shipping, Det Norske Veritas, and Lloyd's Register of Shipping are approved by the U.S. Coast Guard to monitor STCW-related training on its behalf. The Coast Guard provides explicit guidance to organizations that wish to undertake these responsibilities.¹⁷

7. CONCLUSION

The U.S. Congress enacted the MTSA on November 25, 2002. On April 3, 2003, the Secretary delegated to the Maritime Administrator the authority to implement Section 109 of the Act, which requires the Secretary, not later than six months after the date of enactment, to develop standards and curriculum to allow for the training and certification of maritime security professionals. The Secretary found that the Maritime Administration (MARAD) has the expertise and staff to develop and implement a program for the training and certification of maritime security professionals within its area of responsibility and to make funding decisions in accordance with the statutory requirements.

The Section 109 conference report defines the focus of this mandate as the undergraduate education of licensed maritime professionals, advanced and refresher training of licensed maritime and other transportation professionals, and the provision of security and law enforcement professionals with background in the methods and operation of a safe and efficient intermodal transportation system.

The project that was undertaken by the U.S. Merchant Marine Academy on behalf of the Maritime Administrator in fulfillment of this charge has resulted in the creation of a base-level curriculum that addresses the need for maritime security education and training specific to each of these domains. Seven sets of standards and course frameworks are presented. These outlines are not binding, but are intended for immediate use by education and training providers as guidance for instruction in port, maritime, and intermodal security. Their content is consistent with the requirements contained in the MTSA, the ISPS Code, and other pertinent instruments.

Further elaboration of three of these frameworks will be accomplished by May 30, 2003, at which time the USMMA working group (via the U.S. Coast Guard and on behalf of the United States), in cooperation with the government of India, will submit full model courses to the International Maritime Organization for review by a designated IMO Validation Panel. The finalized model courses for Ship Security Officer, Company Security Officer, and Port Facility Security Officer will be returned to the IMO by September 8, 2003 with the expectation that they will be approved and made available to the international maritime community.

The issue of certification and oversight of maritime security education and training is also addressed by this report. The working group recommends that a system of oversight be established and suggests that the Maritime Administration is well positioned to carry out this task.

The standards, curriculum, and recommendations contained herein have been developed through a deliberative and collaborative process, in which the Maritime Administration proactively sought public comment and initiated interagency cooperation. Collaboration with the United States Coast Guard, the Transportation Security Administration, other public agencies, industry associations, and private-sector firms has been pursued to ensure that the guidelines developed are responsive to the needs of affected parties and incorporate the views of stakeholders to the maximum extent possible.

The standards and curricula that are the focus of this Report to Congress, if implemented through a comprehensive and integrated system of certification and oversight, have the potential to significantly enhance port and maritime security. Maritime security education and training are pivotally important elements in what will clearly be a long-term struggle to prevent attacks upon, and criminal activity involving, the nation's port, maritime, and intermodal transportation systems. The effectiveness of this response will be crucial to the future national security of the United States and its allies.

APPENDIX: MODEL COURSE FRAMEWORKS

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**U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION
UNITED STATES MERCHANT MARINE ACADEMY**



Vessel Security Officer (VSO) Course Framework

■ **Scope**

This model course is intended to provide the knowledge required for personnel to conduct the duties of a Vessel Security Officer (VSO) in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ **Objective**

Those who successfully complete the course should be able to undertake the duties and responsibilities of a Vessel Security Officer, which shall include, but are not limited to:

1. undertaking regular security inspections of the vessel to ensure that appropriate security measures are maintained;
2. maintaining and supervising the implementation of the Vessel Security Plan, including any amendments to the plan;
3. coordinating the security aspects of the handling of cargo and vessel stores with other vessel personnel and with the relevant Facility Security Officers;
4. proposing modifications to the Vessel Security Plan;
5. reporting to the Company Security Officer any deficiencies and non-conformities identified during internal audits, periodic reviews, security inspections and verifications of compliance and implementing any corrective actions;
6. enhancing security awareness and vigilance on board;
7. ensuring that adequate training has been provided to vessel personnel, as appropriate;
8. reporting all security incidents;
9. coordinating implementation of the Vessel Security Plan with the Company Security Officer and the relevant Facility Security Officer; and
10. ensuring that security equipment, if any, is properly operated, tested, calibrated and maintained.

■ **Entry standards**

It is assumed that those attending this course will be serving seafarers (or other vessel personnel) and are likely to be designated as Vessel Security Officer. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training as “Vessel Security Officer” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ Teaching aids

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and vessel parts to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Ship Security Officer Guide to ISPS

Available from: Maritime Training Services, Inc.
2633 Eastlake Avenue East, Suite 302
Seattle, WA 98102, USA
001 206 467 8458

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

Distance learning package(s):

Shipboard Security

Available from: Videotel
84 Newman Street
London W1T 3EU
UK
+44 207 299 1800

■ Bibliography

The American Waterways Operators. (2002, April). *AWO Model Vessel Security Plan*. Arlington, VA: AWO.

Fernandez, L., & Merzer, M. (2003). *Jane's Crisis Communications Handbook*, (1st ed.). Alexandria: Jane's Information Group.

Hawkes, K. G. (1989). *Maritime Security*. Centreville: Cornell Maritime Press.

International Chamber of Shipping. (2001, November). *Guidance for Shipowners, Ship Operators and Masters on the Protection of Ships from Terrorism and Sabotage*. London: ICS.

Republic of Liberia. (2002, April). *Proposed Security Manual for Ships and Mobile Offshore Drilling Units*. MSC/Inf. 27. London: International Maritime Organization.

Sidell, F. R., et al. (2002). *Jane's Chem-Bio Handbook*. (2nd ed.). Alexandria: Jane's Information Group.

Sullivan, J. P., et al. (2002). *Jane's Unconventional Weapons Response Handbook*. (1st ed.). Alexandria: Jane's Information Group.

Viollis, P., et al. (2002). *Jane's Workplace Security Handbook*. (1st ed.). Alexandria: Jane's Information Group.

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International Maritime Organization. (2003). *International Ship & Port Facility Security (ISPS) Code, 2003 and December 2002 Amendments to SOLAS*. London: IMO. (IMO-I116E).

Commandant, United States Coast Guard. (2002, April). "Security for Passenger Vessels and Passenger Terminals." Navigation and Vessel Inspection Circular No. 4-02.

Commandant, United States Coast Guard. (2002, 21 October). "Security Guidelines for Vessels." Navigation and Vessel Inspection Circular No. 10-02.

United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002 (P.L. 107-295)*.

"Maritime Security; Notice." (2002, 30 December). Federal Register. Vol.67, No.250.

■ **Textbooks**

No specific textbooks are recommended for use by trainees.

■ **Subject Areas**

The Vessel Security Officer (VSO) should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Relevant international conventions, codes, and recommendations
- 2.2 Relevant government legislation and regulations
- 2.3 Legal implications of action or non-action by the Vessel Security Officer
- 2.4 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Security administration
- 3.2 Responsibilities and functions of other security organizations
- 3.3 Responsibilities and security duties of other personnel

4 Vessel Security Planning

- 4.1 Methodology of vessel security assessment
- 4.2 Methods of vessel security surveys and inspections
- 4.3 Methods of conducting audits, inspection, control and monitoring
- 4.4 Security aspects of the vessel's layout
- 4.5 Implementation and maintenance of the Vessel Security Plan and related procedures

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises
- 5.3 Assessment of security drills and exercises
- 5.4 Crowd management and control techniques

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Methods of physical searches and non-intrusive inspections
- 6.3 Recognition and detection of weapons, dangerous substances and devices
- 6.4 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Security equipment and systems and their operational limitations
- 7.2 Operation of security equipment and systems
- 7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

- 8.1 Initiation, review and completion of a Declaration of Security agreement
- 8.2 Credentialing and identification of personnel
- 8.3 Records and record maintenance

9 Certification and Verification

- 9.1 Initial, interim, and renewal verification
- 9.2 The International Ship Security Certificate

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**U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION
UNITED STATES MERCHANT MARINE ACADEMY**



Company Security Officer (CSO) Course Framework

■ **Scope**

This model course is intended to provide the knowledge required for personnel to conduct the duties of a Company Security Officer (CSO) in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ **Objective**

Those who successfully complete the course should be able to undertake the duties and responsibilities of a Company Security Officer, which shall include, but are not limited to:

1. advising the level of threats likely to be encountered by the vessel, using appropriate security assessments and other relevant information;
2. ensuring that vessel security assessments are carried out;
3. ensuring the development, the submission for approval, and thereafter the implementation and maintenance of the Vessel Security Plan;
4. ensuring that the Vessel Security Plan is modified, as appropriate, to correct deficiencies and satisfy the security requirements of the individual vessel;
5. arranging for internal audits and reviews of security activities;
6. arranging for the initial and subsequent verifications of the vessel by the Administration or the recognized security organization;
7. ensuring that deficiencies and non-conformities identified during internal audits, periodic reviews, security inspections and verifications of compliance are promptly addressed and dealt with;
8. enhancing security awareness and vigilance;
9. ensuring adequate training for personnel responsible for the security of the vessel;
10. ensuring effective communication and cooperation between the Vessel Security Officer and the relevant Facility Security Officers;
11. ensuring consistency between security requirements and safety requirements;
12. ensuring that, if sister-ship or fleet security plans are used, the plan for each vessel reflects the vessel-specific information accurately; and
13. ensuring that any alternative or equivalent arrangements approved for a particular vessel or group of vessels are implemented and maintained.

■ **Entry standards**

It is assumed that those attending this course will be persons employed (or to be employed) by companies owning or operating vessels and are likely to be designated as Company Security Officer. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training as “Company Security Officer” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ **Teaching aids**

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and vessel parts to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Ship Security Officer Guide to ISPS

Available from: Maritime Training Services, Inc.
2633 Eastlake Avenue East, Suite 302
Seattle, WA 98102, USA
001 206 467 8458

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

Distance learning package(s):

Shipboard Security

Available from: Videotel
84 Newman Street
London W1T 3EU
UK
+44 207 299 1800

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Hawkes, K. G. (1989). *Maritime Security*. Centreville: Cornell Maritime Press.

International Chamber of Shipping. (2001, November). *Guidance for Shipowners, Ship Operators and Masters on the Protection of Ships from Terrorism and Sabotage*. London: ICS.

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Commandant, United States Coast Guard. (2002, 21 October). "Security Guidelines for Vessels." Navigation and Vessel Inspection Circular No. 10-02.

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■ **Textbooks**

No specific textbooks are recommended for use by trainees.

■ **Subject Areas**

The Company Security Officer (CSO) should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Relevant international conventions, codes, and recommendations
- 2.2 Relevant government legislation and regulations
- 2.3 Legal implications of action or non-action by the Vessel Security Officer
- 2.4 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Security administration
- 3.2 Responsibilities and functions of other security organizations
- 3.3 Responsibilities and security duties of other personnel

4 Vessel Security Planning

- 4.1 Methodology of vessel security assessment
- 4.2 Methods of vessel security surveys and inspections
- 4.3 Methods of conducting audits, inspection, control and monitoring
- 4.4 Security aspects of the vessel's layout
- 4.5 Development, implementation, and maintenance of the Vessel Security Plan and related procedures
- 4.6 Instructional techniques for security training and education

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises
- 5.3 Assessment of security drills and exercises
- 5.4 Crowd management and control techniques

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Methods of physical searches and non-intrusive inspections
- 6.3 Recognition and detection of weapons, dangerous substances and devices
- 6.4 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Security equipment and systems and their operational limitations
- 7.2 Operation of security equipment and systems
- 7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

- 8.1 Initiation, review and completion of a Declaration of Security agreement
- 8.2 Credentialing and identification of personnel
- 8.3 Records and record maintenance

9 Certification and Verification

- 9.1 Initial, interim, and renewal verification
- 9.2 The International Ship Security Certificate

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**U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION
UNITED STATES MERCHANT MARINE ACADEMY**



Facility Security Officer (FSO) Course Framework

■ **Scope**

This model course is intended to provide the knowledge required for personnel to conduct the duties of a Facility Security Officer (CSO) in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ **Objective**

Those who successfully complete the course should be able to undertake the duties and responsibilities of a Facility Security Officer, which shall include, but are not limited to:

1. conducting an initial comprehensive security survey of the port facility taking into account the relevant port facility security assessment;
2. ensuring the development and maintenance of the Facility Security Plan;
3. implementing and exercising the Facility Security Plan;
4. undertaking regular security inspections of the port facility to ensure the continuation of appropriate security measures;
5. recommending and incorporating, as appropriate, modifications to the Facility Security Plan in order to correct deficiencies and to update the plan to take into account of relevant changes to the port facility;
6. enhancing security awareness and vigilance of port facility personnel;
7. ensuring that adequate training has been provided to personnel responsible for the security of the port facility;
8. reporting to the relevant authorities and maintaining records of occurrences that threaten the security of the port facility;
9. coordinating implementation of the Facility Security Plan with the appropriate Company and Vessel Security Officer(s);
10. coordinating with security services, as appropriate;
11. ensuring that standards for personnel responsible for security of the port facility are met;
12. ensuring that security equipment, if any, is properly operated, tested, calibrated and maintained; and
13. assisting Vessel Security Officers in confirming the identity of those seeking to board the ship when requested.

■ **Entry standards**

It is assumed that those attending this course will be persons employed (or to be employed) by port facility operators and are likely to be designated as Facility Security Officer. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training as “Facility Security Officer” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard or facility environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ **Teaching aids**

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and/or facilities to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

■ **Bibliography**

Fernandez, L., & Merzer, M. (2003). *Jane's Crisis Communications Handbook*, (1st ed.). Alexandria: Jane's Information Group.

FIA International Research, Ltd. (2001). *Contraband, Organized Crime and the Threat to the Transportation and Supply Chain Function*. FIA International.

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United States Department of Transportation. (1997). *Port Security: A National Planning Guide*. Washington, D.C.: U.S. DOT.

United States Department of Transportation. (1998). *Port Security: Security Force Management*. Washington, D.C.: U.S. DOT.

Sidell, F. R., et al. (2002). *Jane's Chem-Bio Handbook*. (2nd ed.). Alexandria: Jane's Information Group.

Sullivan, J. P., et al. (2002). *Jane's Unconventional Weapons Response Handbook*. (1st ed.). Alexandria: Jane's Information Group.

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■ **IMO, legislative, and regulatory references**

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Commandant, United States Coast Guard. (2002, September). "Guidelines for Port Security Committees and Port Security Plans Required for U.S. Ports." Navigation and Vessel Inspection Circular No. 9-02.

Commandant, United States Coast Guard. (2002, 21 October). "Security Guidelines for Vessels." Navigation and Vessel Inspection Circular No. 10-02.

United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002 (P.L. 107-295)*.

"Maritime Security; Notice." (2002, 30 December). Federal Register. Vol.67, No.250.

■ Textbooks

No specific textbooks are recommended for use by trainees

■ Subject Areas

The Facility Security Officer (FSO) should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Relevant international conventions, codes, and recommendations
- 2.2 Relevant government legislation and regulations
- 2.3 Legal implications of action or non-action by the Facility Security Officer
- 2.3 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Security administration
- 3.2 Responsibilities and functions of other security organizations
- 3.3 Responsibilities and security duties of other personnel

4 Facility Security Planning

- 4.1 Methodology of port facility security assessment
- 4.2 Methods of port facility security surveys and inspections
- 4.3 Methods of conducting audits, inspection, control and monitoring
- 4.4 Security aspects of port facility and vessel layout
- 4.5 Development, implementation, and maintenance of the Facility Security Plan and related procedures
- 4.6 Instructional techniques for security training and education

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises
- 5.3 Assessment of security drills and exercises
- 5.4 Crowd management and control techniques

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Methods of physical searches and non-intrusive inspections
- 6.3 Recognition and detection of weapons, dangerous substances and devices
- 6.4 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Security equipment and systems and their operational limitations
- 7.2 Operation of security equipment and systems
- 7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

- 8.1 Initiation, review and completion of a Declaration of Security agreement
- 8.2 Credentialing and identification of personnel
- 8.3 Records and record maintenance

9 Certification and Verification

- 9.1 Initial, interim, and renewal verification
- 9.2 The Facility Security Plan

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U.S. DEPARTMENT OF TRANSPORTATION
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Maritime Security For Vessel Personnel with Specific Security Duties Course Framework

■ Scope

This model course is intended to provide the knowledge required for vessel personnel who are assigned specific security duties in connection with a Vessel Security Plan (VSP) to perform their duties in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ Objective

Those who successfully complete the course should be able to demonstrate sufficient knowledge to undertake the duties assigned under the VSP. This knowledge shall include, but is not limited to:

1. knowledge of current security threats and patterns;
2. recognition and detection of weapons, dangerous substances and devices;
3. recognition of characteristics and behavioral patterns of persons who are likely to threaten security;
4. techniques used to circumvent security measures;
5. crowd management and control techniques;
6. security related communications;
7. knowledge of emergency procedures and contingency plans;
8. operation of security equipment and systems;
9. testing, calibration and at-sea maintenance of security equipment and systems;
10. inspection, control, and monitoring techniques; and
11. methods of physical searches of persons, personal effects, baggage, cargo, and vessel stores.

■ **Entry standards**

It is assumed that those attending this course will be serving seafarers (or other vessel personnel) and are likely to be assigned specific security duties in connection with the Vessel Security Plan. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training in “Maritime Security for Vessel Personnel with Specific Security Duties” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ Teaching aids

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and vessel parts to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

■ Bibliography

The American Waterways Operators. (2002, April). *AWO Model Vessel Security Plan*. Arlington, VA: AWO.

Fernandez, L., & Merzer, M. (2003). *Jane's Crisis Communications Handbook*, (1st ed.). Alexandria: Jane's Information Group.

Hawkes, K. G. (1989). *Maritime Security*. Centreville: Cornell Maritime Press.

International Chamber of Shipping. (2001, November). *Guidance for Shipowners, Ship Operators and Masters on the Protection of Ships from Terrorism and Sabotage*. London: ICS.

Republic of Liberia. (2002, April). *Proposed Security Manual for Ships and Mobile Offshore Drilling Units*. MSC/Inf. 27. London: International Maritime Organization.

Sidell, F. R., et al. (2002). *Jane's Chem-Bio Handbook*. (2nd ed.). Alexandria: Jane's Information Group.

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United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002* (P.L. 107-295).

"Maritime Security; Notice." (2002, 30 December). Federal Register. Vol.67, No.250.

■ Textbooks

No specific textbooks are recommended for use by trainees.

■ Subject Areas

Vessel personnel having specific security duties should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Familiarity with relevant conventions, codes, legislation and regulations
- 2.2 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Responsibilities and functions of other security organizations
- 3.2 Responsibilities and security duties of other personnel

4 Shipboard Security Planning

- 4.1 Methods of vessel security surveys and inspections
- 4.2 Security aspects of the vessel's layout

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises

5.3 Crowd management and control techniques

6 Threat Identification and Recognition

6.1 Meaning and consequential requirements of different security levels

6.2 Methods of physical searches and non-intrusive inspections

6.3 Recognition and detection of weapons, dangerous substances and devices

6.4 Recognition of persons posing potential security risks

7 Security Equipment

7.1 Security equipment and systems and their operational limitations

7.2 Operation of security equipment and systems

7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

8.1 Familiarity with the Declaration of Security agreement

8.2 Familiarity with personnel credentialing and identification procedures

9 Certification and Verification

9.1 Familiarity with certification and verification procedures

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U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION
UNITED STATES MERCHANT MARINE ACADEMY



Maritime Security For Facility Personnel with Specific Security Duties Course Framework

■ Scope

This model course is intended to provide the knowledge required for facility personnel who are assigned specific security duties in connection with a Facility Security Plan (FSP) to perform their duties in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ Objective

Those who successfully complete the course should be able to demonstrate sufficient knowledge to undertake the duties assigned under the FSP. This knowledge shall include, but is not limited to::

1. knowledge of current security threats and patterns;
2. recognition and detection of weapons, dangerous substances and devices;
3. recognition of characteristics and behavioral patterns of persons who are likely to threaten security;
4. techniques used to circumvent security measures;
5. crowd management and control techniques;
6. security related communications;
7. knowledge of emergency procedures and contingency plans;
8. operation of security equipment and systems;
9. testing, calibration and maintenance of security equipment and systems;
10. inspection, control, and monitoring techniques; and
11. methods of physical searches of persons, personal effects, baggage, cargo, and vessel stores.

■ **Entry standards**

It is assumed that those attending this course will be persons employed (or to be employed) by a port facility operator and are likely to be assigned specific security duties in connection with the Facility Security Plan. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training in “Maritime Security for Facility Personnel with Specific Security Duties” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard or facility environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ Teaching aids

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various facilities to illustrate operational elements and security vulnerabilities.

■ Bibliography

Fernandez, L., & Merzer, M. (2003). *Jane's Crisis Communications Handbook*, (1st ed.). Alexandria: Jane's Information Group.

FIA International Research, Ltd. (2001). *Contraband, Organized Crime and the Threat to the Transportation and Supply Chain Function*. FIA International.

Hawkes, K. G. (1989). *Maritime Security*. Centreville: Cornell Maritime Press.

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United States Department of Transportation. Volpe National Transportation Systems Center. (1999). *Intermodal Cargo Transportation: Industry Best Security Practices*. Cambridge: Volpe Center.

United States Department of Transportation. (1997). *Port Security: A National Planning Guide*. Washington, D.C.: U.S. DOT.

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Sullivan, J. P., et al. (2002). *Jane's Unconventional Weapons Response Handbook*. (1st ed.). Alexandria: Jane's Information Group.

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United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002* (P.L. 107-295).

"Maritime Security; Notice." (2002, 30 December). Federal Register. Vol.67, No.250.

■ **Textbooks**

No specific textbooks are recommended for use by trainees

■ **Subject Areas**

Facility personnel having specific security duties should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Familiarity with relevant conventions, codes, legislation and regulations
- 2.2 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Responsibilities and functions of other security organizations
- 3.2 Responsibilities and security duties of other personnel

4 Facility Security Planning

- 4.1 Methods of facility security surveys and inspections
- 4.2 Security aspects of the facility's layout

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises
- 5.3 Crowd management and control techniques

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Methods of physical searches and non-intrusive inspections
- 6.3 Recognition and detection of weapons, dangerous substances and devices
- 6.4 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Security equipment and systems and their operational limitations
- 7.2 Operation of security equipment and systems
- 7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

- 8.1 Familiarity with the Declaration of Security agreement
- 8.2 Familiarity with personnel credentialing and identification procedures

9 Certification and Verification

- 9.1 Familiarity with certification and verification procedures

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U.S. DEPARTMENT OF TRANSPORTATION
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Maritime Security for Military, Security, and Law Enforcement Personnel Course Framework

■ Scope

This model course is intended to provide the knowledge required for military, security, and law enforcement personnel without prior maritime background to conduct their duties aboard vessels, in port facilities, and elsewhere in the marine environment in accordance with the requirements of the Maritime Transportation Security Act of 2002. Emphasis is placed on prevention of acts of terrorism in marine and intermodal transportation systems.

■ Objective

Those who successfully complete the course should be able to undertake the duties and responsibilities of military, security, and law enforcement personnel in the port, maritime, and intermodal context, which may include, but are not limited to:

1. inspecting vessels, terminals, and other facilities to ensure that appropriate security measures are maintained;
2. conducting investigations, gathering intelligence, executing search and arrest warrants, and collecting physical and documentary evidence;
3. responding to and managing crises involving threats of terrorism or actual attacks;
4. monitoring and controlling access to facilities and vessels;
5. interviewing, examining, and credentialing transportation workers and facility personnel;
6. conducting surveillance operations and participating in undercover assignments;
7. tracking and interdicting suspicious cargo, persons, vessels, or vehicles;
8. detecting the presence of bombs, explosives, and Weapons of Mass Destruction;
9. interacting on security matters with Vessel Security Officers, Company Security Officers, Facility Security Officers, and relevant federal, state, and local agencies; and
10. performing threat, risk, and vulnerability assessments; security planning; and contingency planning.

■ **Entry standards**

It is assumed that those attending this course will be experienced military, security, or law enforcement personnel. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training in “Maritime Security for Military, Security, and Law Enforcement Personnel” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard or facility environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ Teaching aids

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and facilities to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

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Commandant, United States Coast Guard. (2002, September). "Guidelines for Port Security Committees and Port Security Plans Required for U.S. Ports." Navigation and Vessel Inspection Circular No. 9-02.

Commandant, United States Coast Guard. (2002, 21 October). "Security Guidelines for Vessels." Navigation and Vessel Inspection Circular No. 10-02.

United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002 (P.L. 107-295)*.

"Maritime Security; Notice." (2002, 30 December). Federal Register. Vol.67, No.250.

■ Textbooks

No specific textbooks are recommended for use by trainees

■ Subject Areas

Military, security, and law enforcement personnel operating in the port and maritime environment should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Maritime indoctrination and definitions
- 1.2 Supply chain and intermodal transportation system structure and operations
- 1.3 Port and transportation information and tracking systems
- 1.4 Cargo and transportation documentation
- 1.5 Maritime intelligence gathering and dissemination
- 1.6 Hazardous materials security
- 1.7 Current security threats and patterns
- 1.8 Port and maritime security measures
- 1.9 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 Relevant international conventions, codes, and recommendations
- 2.2 Relevant government legislation and regulations
- 2.3 Handling sensitive security-related information and communications

3 Maritime Security Organization

- 3.1 Security administration
- 3.2 Responsibilities and functions of other security organizations
- 3.3 Responsibilities and security duties of other personnel

4 Vessel and Facility Security Planning

- 4.1 Methodology of vessel and port facility security assessment
- 4.2 Methods of vessel and port facility security surveys and inspections
- 4.3 Methods of conducting audits, inspection, control and monitoring
- 4.4 Security aspects of vessel and facility layout
- 4.5 The Vessel Security Plan, Facility Security Plan, and related procedures

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Crisis management
- 5.3 Security drills and exercises
- 5.4 Assessment of security drills and exercises
- 5.5 Crowd management and control techniques

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Methods of physical searches and non-intrusive inspections
- 6.3 Recognition and detection of weapons, dangerous substances and devices
- 6.4 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Security equipment and systems and their operational limitations
- 7.2 Operation of security equipment and systems
- 7.3 Testing, calibration and maintenance of security equipment and systems

8 Security Documentation

- 8.1 The Declaration of Security agreement
- 8.2 Credentialing and identification of personnel
- 8.3 Records and record maintenance

9 Certification and Verification

- 9.1 Familiarity with initial, interim, and renewal verification
- 9.2 Familiarity with the International Ship Security Certificate
- 9.3 The Facility Security Plan



**U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION
UNITED STATES MERCHANT MARINE ACADEMY**



**Maritime Security Awareness
Course Framework**

■ **Scope**

This model course is intended to provide the knowledge required for vessel, facility, and other maritime personnel who are not assigned specific security duties in connection with a Vessel Security Plan (VSP) or a Facility Security Plan (FSP) to enhance security and operate safely in the heightened-threat maritime environment. Emphasis is placed on increased security awareness consistent with the provisions of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

■ **Objective**

Those who successfully complete the course should be able to demonstrate the knowledge necessary to enhance security and operate safely in the heightened-threat marine transportation environment. This knowledge shall include, but is not limited to:

1. the meaning and consequential requirements of the different security levels;
2. knowledge of emergency procedures and contingency plans;
3. recognition and detection of weapons, dangerous substances and devices;
4. recognition of characteristics and behavioral patterns of persons who are likely to threaten security; and
5. techniques used to circumvent security measures.

■ **Entry standards**

It is assumed that those attending this course will be serving seafarers, other vessel personnel, persons employed in port facilities, or other maritime personnel who are familiar with port and maritime operations. Recommended minimum standards for trainees include, as appropriate:

- Appropriate and verified citizenship
- Criminal record review (46 CFR 10.201(h))
- Physical examination (46 CFR 10.205(d))
- Character check and references (46 CFR 10.205(f))
- First aid & CPR certificates (46 CFR 10.205(h))
- Approved Drug Lab Test results (46 CFR 10.205(j))

■ **Course certificate, diploma or document**

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training in “Maritime Security Awareness” based on this model course.

■ **Course delivery**

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ **Course intake limitations**

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ **Staff requirements**

The instructor in charge of the course shall have had training and/or acceptable equivalent practical experience in the subject matter of this course, including knowledge of vessel and port operations, maritime security matters, and the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and relevant U.S. Coast Guard regulations.

It is recommended that the instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ **Teaching facilities and equipment**

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ **Teaching aids**

Detailed teaching syllabus

Audiovisual aids: video cassette player, TV, slide projector, overhead projector, etc.

Photographs, models, or other representations of various vessels and/or facilities to illustrate operational elements and security vulnerabilities.

Video cassette(s):

Shipboard Security Awareness

Available from: Ship Operations Cooperative Program
C/o Mr. Ram Nagendran
PRC, Inc. MS 6S3
1500 PRC Drive
McLean, VA 22102 USA

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United States Congress. (2002, 25 November). *Maritime Transportation Security Act of 2002 (P.L. 107-295)*.

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■ Textbooks

No specific textbooks are recommended for use by trainees.

■ Subject Areas

Vessel personnel having specific security duties should have knowledge of, and receive training in, some or all of the following, as appropriate:

1 General Knowledge

- 1.1 Definitions
- 1.2 Vessel and port operations and conditions
- 1.3 Vessel and port facility security measures
- 1.4 Current security threats and patterns
- 1.5 Techniques used to circumvent security measures

2 Maritime Security Policy

- 2.1 General awareness of relevant conventions, codes, legislation and regulations
- 2.2 Awareness of security-related communications

3 Maritime Security Organization

- 3.1 Responsibilities and functions of other security organizations
- 3.2 Responsibilities and security duties of other personnel

4 Security Planning

Not applicable to this category of personnel at this time

5 Emergency Preparedness

- 5.1 Emergency preparedness, emergency response, and contingency planning
- 5.2 Security drills and exercises

6 Threat Identification and Recognition

- 6.1 Meaning and consequential requirements of different security levels
- 6.2 Recognition of persons posing potential security risks

7 Security Equipment

- 7.1 Familiarity with security equipment and systems

8 Security Documentation

- 8.1 Awareness of personnel credentialing and identification procedures

9 Certification and Verification

- 9.1 Awareness of certification and verification procedures

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